Studies in History and Philosophy of Science 2002

Volume 33A

List of Contents and Author Index

PII: S0039-3681(02)00070-5

PERGAMON

Studies in History and Philosophy of Science

Editors
Nicholas Jardine
Professor of History and Philosophy of the Sciences
University of Cambridge, U.K.

Marina Frasca-Spada
Affiliated Lecturer in History and Philosophy of Science
University of Cambridge, U.K.

Associate Editor
Katherine Fletcher
University of Cambridge, U.K.

Advisory Editors
Andrew Cunningham
University of Cambridge, U.K.

Martin Kusch
University of Cambridge, U.K.

Peter Lipton
University of Cambridge, U.K.

Consulting Editors

Mario Biagioli, Harvard University, U.S.A.
Geoffrey Cantor, University of Leeds, U.K.
William Clark, University of Cambridge, U.K.
I. Bernard Cohen, Harvard University, U.S.A.
Bas van Fraassen, Princeton University, U.S.A.
Daniel Garber, University of Chicago, U.S.A.
Donald Gillies, University of London, U.K.
Mary Hesse, University of Cambridge, U.K.
Colin Howson, London School of Economics, U.K.
S. Kusukawa, University of Cambridge, U.K.
Peter Kosso, Northern Arizona University, U.S.A.
Bruno Latour, Ecole Nationale Supérieure des Mines, Paris, France
Lawrence L. Laudan, University of Hawaii, U.S.A.
Geoffrey Lloyd, University of Cambridge, U.K.
Michael S. Mahoney, Princeton University, U.S.A.
Ernan McMullin, University of Notre Dame, U.S.A.
Alan Musgrave, University of Otago, New Zealand
Andrew Pickering, University of Illinois, U.S.A.
James A. Secord, University of Cambridge, U.K.
Emma C. Spary, Max-Planck-Institut für Wissenschaftsgeschichte, Berlin, Germany
Liba Taub, University of Cambridge, U.K.
Karen Tybjerg, Darwin College, U.K.

Frequency: Published Quarterly

Publication information: *Studies in History and Philosophy of Science* (ISSN 0039-3681). For 2002, volume 33 is scheduled for publication. Subscription prices are available upon request from the Publisher or from the Regional Sales Office nearest you or from this journal's website (http://www.elsevier.com/locate/shpsa). Further information is available on this journal and other Elsevier Science products through Elsevier's website: (http://www.elsevier.com). Subscriptions are accepted on a prepaid basis only and are entered on a calendar year basis. Issues are sent by standard mail (surface within Europe, air delivery outside Europe). Priority rates are available upon request. Claims for missing issues should be made within six months of the date of dispatch.

Advertising information. Advertising orders and enquiries can be sent to: **USA, Canada and South America**: Mr Tino de Carlo, The Advertising Department, Elsevier Science Inc., 360 Park Avenue South, New York, NY 10010-1710, USA; phone: (+1) (212) 633 3815; fax: (+1) (212) 633 3820; e-mail: t.decarlo@elsevier.com. **Japan**: The Advertising Department, Elsevier Science K.K., 9-15 Higashi-Azabu 1-chome, Minato-ku, Tokyo 106-0044, Japan; phone: (+81) (3) 5561 5033; fax: (+81) (3) 5561 5047. **Europe and ROW**: Commercial Sales Department, The Advertising Department, Elsevier Science Ltd., The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, UK; phone: (+44) (1865) 843565; fax: (+44) (1865) 843976; e-mail: media@elsevier.com

Orders, claims, and product enquiries: please contact the Customer Support Department at the Regional Sales Office nearest you:

New York: Elsevier Science, PO Box 945, New York, NY 10159-0945, USA; phone: (+1) (212) 633 3730 [toll free number for North American customers: 1-888-4ES-INFO (437-4636)]; fax: (+1) (212) 633 3680; e-mail: usinfo-f@elsevier.com

Amsterdam: Elsevier Science, PO Box 211, 1000 AE Amsterdam, The Netherlands; phone: (+31) 20 4853757; fax: (+31) 20 4853432; e-mail: nlinfo-f@elsevier.com

Tokyo: Elsevier Science, 9-15 Higashi-Azabu 1-chome, Minato-ku, Tokyo 106, Japan; phone: (+81) (3) 5561 5033; fax: (+81) (3) 5561 5047; e-mail: info@elsevier.co.jp

Singapore: Elsevier Science, 3 Killiney Road, #08-01 Winsland House I, Singapore 239519; phone: (+65) 6349 0200; fax: (+65) 6733 1510; e-mail: asiainfo@elsevier.com.sg

Rio de Janeiro: Elsevier Science, Rua Sete de Setembro 111/16 Andar, 20050–002 Centro, Rio de Janeiro - RJ, Brazil; phone: (+55) (21) 509 5340; fax: (+55) (21) 507 1991; e-mail: elsevier@campus.com.br [Note (Latin America): for orders, claims and help desk information, please contact the Regional Sales Office in New York as listed above]

USA mailing notice: Studies in History and Philosophy of Science (ISSN 0039-3681) is published four issues per year in March, June, September and December by Elsevier Science Ltd. (P.O. Box 211, 1000 AE Amsterdam, The Netherlands). Annual subscription price in the USA US$417.00 (valid in North, Central and South America), including air speed delivery. Periodical postage rate paid at Jamaica, NY 11431.
USA POSTMASTER: Send address changes to Studies in History and Philosophy of Science, Publications Expediting Inc., 200 Meacham Ave, Elmont, NY 11003.
AIRFREIGHT AND MAILING in the USA by Publications Expediting Inc., 200 Meacham Avenue, Elmont, NY 11003.

Author enquiries. For enquiries relating to the submission of articles (including electronic submission where available) please visit the Author Gateway from Elsevier Science at http://authors.elsevier.com. The Author Gateway also provides the facility to track accepted articles and set up e-mail alerts to inform you of when an article's status has changed, as well as detailed artwork guidelines, copyright information, frequently asked questions and more.

Contact details for questions arising after acceptance of an article, especially those relating to proofs, are provided after registration of an article for publication.

Copyright © 2002 Elsevier Science Ltd

Contents

NUMBER 1 March

Articles

LEO B. SLATER	1	Instruments and rules: R. B. Woodward and the tools of twentieth-century organic chemistry
BENJAMIN W. REDEKOP	35	Thomas Reid and the problem of induction: from common experience to common sense
MARTIN COLEMAN	59	Taking Simmel seriously in evolutionary epistemology
MICHEL TER HARK	79	Between autobiography and reality: Popper's inductive years
STRUAN JACOBS	105	Polanyi's presagement of the incommensurability concept
MICHAEL A. BISHOP and STEPHEN M. DOWNES	121	The theory theory thrice over: the child as scientist, Superscientist or social institution?
BENOÎT GODIN and YVES GINGRAS	137	The experimenters' regress: from skepticism to argumentation

Discussions

H. M. COLLINS	153	The experimenter's regress as philosophical sociology
PETER R. ANSTEY	161	Robert Boyle and the heuristic value of mechanism
ANDREW PYLE	175	Boyle on science and the mechanical philosophy: a reply to Chalmers
ALAN CHALMERS	191	Experiment versus mechanical philosophy in the work of Robert Boyle: a reply to Anstey and Pyle

Essay review

TIM LEWENS	199	Darwinnovation!

NUMBER 2 June

SPECIAL ISSUE: TESTIMONY

Articles

Martin Kusch and Peter Lipton	209	Testimony: a primer
Silvia De Renzi	219	Witnesses of the body: medico-legal cases in seventeenth-century Rome
Barbara J. Shapiro	243	Testimony in seventeenth-century English natural philosophy: legal origins and early development
Palmira Fontes da Costa	265	The making of extraordinary facts: authentication of singularities of nature at the Royal Society of London in the first half of the eighteenth century
Ian A. Burney	289	Testing testimony: toxicology and the law of evidence in early nineteenth-century England
Paul L. Harris	315	Checking our sources: the origins of trust in testimony
Martin Kusch	335	Testimony in communitarian epistemology
C. A. J. Coady	355	Testimony and intellectual autonomy
Elizabeth Fricker	373	Trusting others in the sciences: *a priori* or empirical warrant?
Frederick F. Schmitt	385	Testimonial justification: the parity argument
Michael Welbourne	407	Is Hume really a reductivist?

NUMBER 3 September

Articles

Neil Campbell Manson	425	Epistemic consciousness
Alexander Bird	443	Kuhn's wrong turning
Xinli Wang	465	Taxonomy, truth-value gaps and incommensurability: a reconstruction of Kuhn's taxonomic interpretation of incommensurability
Matteo Motterlini	487	Reconstructing Lakatos: a reassessment of Lakatos' epistemological project in the light of the Lakatos Archive
Karen Merikangas Darling	511	The complete Duhemian underdetermination argument: scientific language and practice
Stephen Gaukroger and John Schuster	535	The hydrostatic paradox and the origins of Cartesian dynamics
Gideon Freudenthal	573	*Perpetuum mobile*: the Leibniz-Papin controversy

Essay review

Martin Kusch	639	Metaphysical déjà vu: Hacking and Latour on science studies and metaphysics

NUMBER 4 December

Articles

ERIC SCHWITZGEBEL	649	Why did we think we dreamed in black and white?
FRANCESCA ROCHBERG	661	A consideration of Babylonian astronomy within the historiography of science
PAUL NEEDHAM	685	Duhem's theory of mixture in the light of the Stoic challenge to the Aristotelian conception
EDUARD GLAS	709	Socially conditioned mathematical change: the case of the French Revolution
AILEEN FYFE	729	Publishing and the classics: Paley's *Natural theology* and the nineteenth-century scientific canon
MAURICE A. FINOCCHIARO	753	Galileo as a 'bad theologian': a formative myth about Galileo's trial
MICHAEL J. FUTCH	793	Supervenience and (non-modal) reductionism in Leibniz's philosophy of time
	811	Books in the history and philosophy of science
	I	2002 Contents and Author Index